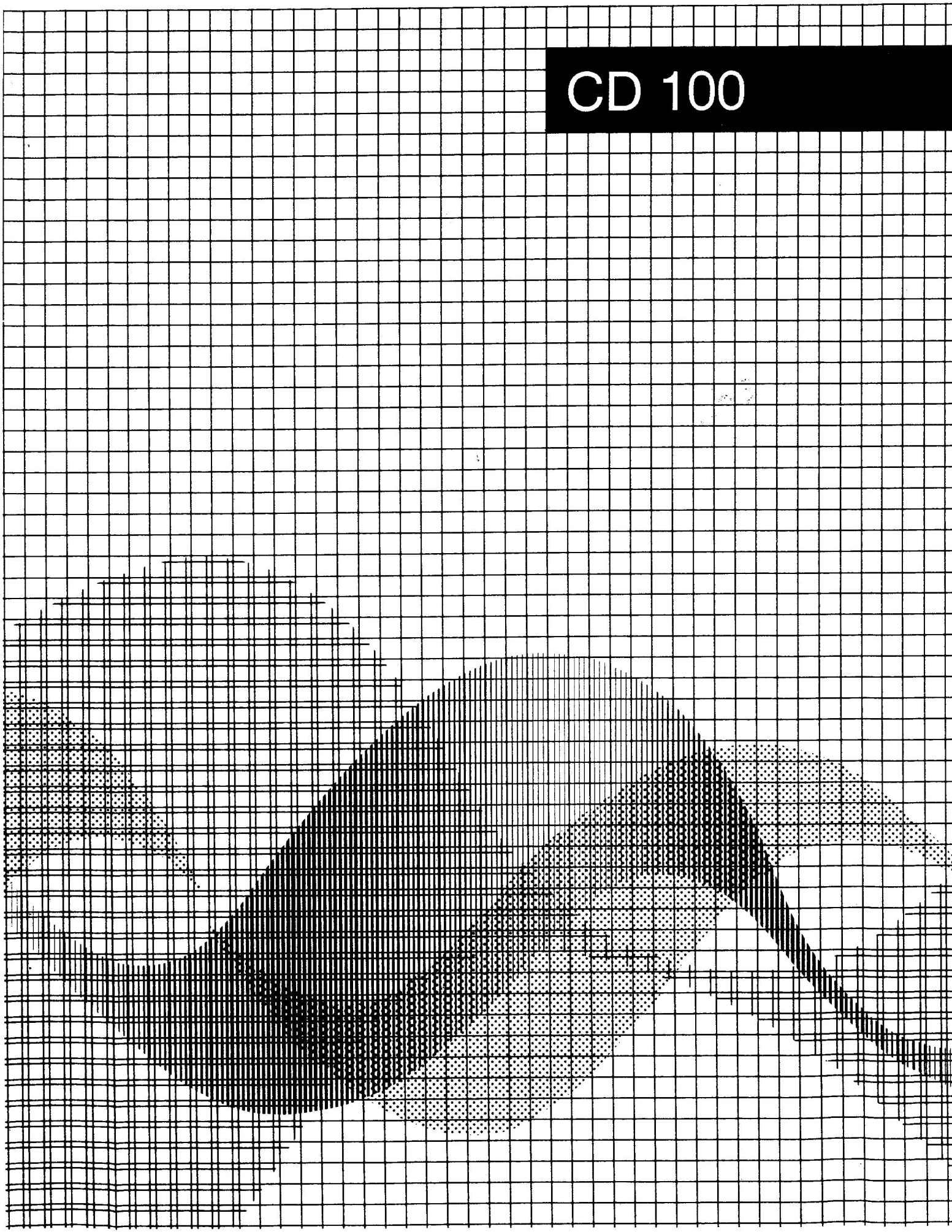
PHILIPS

PHILIPS

CD 100



English

	Page
Installation	3
Operation	3
Programming	5
Additional Information	6

Français

	Page
Installation	10
Utilisation	10
Programmation	13
Informations supplémentaires	14

Deutsch

	Seite
Inbetriebnahme	17
Bedienung	17
Programmieren	19
Ergänzende Informationen	21

Nederlands

	Pag.
In gebruik nemen	24
Bediening	24
Programmeren	26
Aanvullende informatie	28

English

INTRODUCTION

Compact Disc is the biggest advance ever made in audio technology. By employing the most sophisticated digital and optical technologies, Compact Disc not only produces the ultimate in sound reproduction, it gives you the user, access to operating features such as a unique multiple programming possibility which have never seen before in audio equipment designed for the home.
As the owner of a new Philips Compact Disc player, you are one of the priviledged few people able to enjoy this experience.
Below you will find the instructions for installing, operating and programming your Philips Compact Disc player. Please read them carefully and follow the instructions step by step. We have kept them as short and concise as possible as we know how anxious you are to hear your Compact Disc player for the very first time.
Elsewhere in the user's pack, you will find useful information about Compact Disc. To help you understand the revolutionary nature of the product you have bought, there are separate booklets on laser and digital technologies. The complimentary disc enclosed in the user's pack will illustrate to your family and friends the full capability of your new Compact Disc player. And there is a complete catalogue of all the Compact Disc titles available for you to buy.
Welcome to the world of Philips Compact Disc: the origin of pure, perfect sound - forever.

INSTALLATION

Checking the Power Supply

The type plate, on the bottom of your Compact Disc player, tells you the supply voltage for which the player is set. If your mains supply voltage is different, or becomes different in the future, get your dealer - or our Service Organisation - to change the voltage setting for you.

U.K. only: If your player is not fitted with a mains plug, refer to 'Fitting a Mains Plug' under 'ADDITIONAL INFORMATION'.

Taking Out the Transit Screws

On the bottom of the player you will see two labelled screws which lock the player mechanism to protect it during transportation.
Remove the screws and keep them in your documentation wallet. Always refit them if the player is to be transported.

Siting the Player

Stand the player on a firm surface - not on any kind of mat - and take care that the ventilation slots in the top and rear are kept clear so as not to interfere with the cooling of the player.
If you fit the player in a cabinet, rack or wall unit, there should be a clear space of 3 cm all round.
Never stand the player on other equipment, or near any heat source. Avoid positions where the player would be subjected to direct sunlight for long periods.

Connecting to the Amplifier

To connect the player to your amplifier, you use the cable supplied. This has two plugs, marked L and R, at each end.
Connect the cable to the L and R sockets at the back of the player, and to the CD/TV or AUX sockets on your amplifier. If these sockets are already in use, you can plug in to the TUNER or TAPE IN sockets, but never the PHONO sockets! The PHONO sockets are not suitable for the connection of a Compact Disc player.

OPERATION

Your Compact Disc player is now ready for use. Before attempting to operate it, you are recommended to familiarise yourself with the functions of the controls and indicators as described briefly below. The names used here for the controls and indicators will be used throughout the text.

- ON/OFF key: for switching on and off.
- PAUSE LED: lights when the PAUSE key is pressed.
- PROGR(amme) display: a LED-bar display which indicates the number of tracks on a disc; also used as an aid in compiling a programme.
- TRACK display: a LED-bar display in which the LEDs light one at a time to indicate the track in play; also used to locate tracks for programming.
- REPEAT LED: lights when the REPEAT button is pressed.
- ERROR LED: flashes to indicate an operating or programming error.
- PLAY/NEXT key: for starting play (PLAY) and for moving on to the next track during play (NEXT).

- PAUSE key: for short-term interruptions during play: stops the sound, but leaves the disc motor running.
- STOP/CM key: for stopping play during playback (STOP) and for erasing a programme (CM = Clear Memory).
- REPEAT button: for repeating a disc or a programme.
- REV SEARCH key: for searching backwards for a particular passage in a track.
- FWD SEARCH key: for searching forwards for a particular passage in a track.
- PUSH TO OPEN: rectangular boss on cover, which you press to open the disc compartment.
- SELECT button: for selecting the track you wish to start playback with, and for choosing tracks when compiling a programme.
- CANCEL button: for cancelling the tracks you do not want to hear in a programme.
- STORE button: for storing tracks when compiling a programme.

On and Off switching (ON/OFF)

You switch the player on by pressing the ON/OFF key. All the LEDs in the PROGR Display will light. When you press the ON/OFF key again, the player is switched off. The PROGR Display will go out.

Loading and Unloading a Disc (PUSH TO OPEN)

You open the disc compartment by pressing the PUSH TO OPEN boss on the cover. The cover will lift automatically.
With your hand open, and thumb and fingers extended, take the Compact Disc out of its holder and fit it, label side up, on to the spindle in the disc compartment. Close the cover by pressing it down. Hold the disc in the same way to remove it.
To prevent the ingress of dust and the formation of a film on the lens of the laser pick-up, never leave the cover open unnecessarily. (See also 'Player Maintenance'.)
Avoid opening the cover during play, because this will stop the disc.

Playing the Disc (PLAY)

You start the disc by pressing the PLAY key: the first TRACK Display LED will light. As soon as the player has read the contents list recorded at the beginning of the disc, the number of LEDs alight in the PROGR Display will correspond to the number of tracks on the disc. All the tracks will then be played consecutively.
As each track ends, the corresponding PROGR Display LED goes out, while the lighted TRACK Display LED moves on one place. Thus the progress of the playback is always displayed.
When all the tracks have been played, the disc stops and all 15 PROGR Display LEDs relight; the TRACK Display LED goes out.

Going on to the Next Track (PLAY NEXT)

If you decide to skip the track being played, and go on to the next, press the PLAY key again. The lighted TRACK Display LED moves on one place and play is suspended until the laser pick-up reaches the next track.
If you press the PLAY key during the last track, the ERROR LED will flash, reminding you that there is no next track. The player will then begin to play the first track on the disc.
You can also use the PLAY NEXT mode to get a quick idea of the disc contents by listening to the beginning of each track.

Beginning at any Specific Track (GO-TO mode)

To start play with a track other than the first, you must locate the track required on the TRACK Display. To do this, you press the SELECT button; the first TRACK Display LED will begin to flash. Press the SELECT button again and the flashing TRACK Display LED will move forward one place. You press the SELECT button successively until the flashing TRACK Display LED indicates the required track. Alternatively, you can hold the SELECT button down and let the flashing TRACK Display LED run through until it reaches the track required. The TRACK Display LED will continue to flash under the chosen track for about 10 seconds, during which time you must press the PLAY key. The PROGR Display LEDs will go out one after another until the chosen track is indicated, then play will begin.
You can also use the GO-TO mode after play has begun, e.g. to skip a number of tracks. Play will then be interrupted from the time the PLAY key is pressed until the newly chosen track is reached.
If, by mistake, you select a track higher than the highest track number on the disc, the ERROR LED will flash. This will happen immediately with a disc that is already playing, or after the contents list has been read with a disc that has not yet started. Play will then begin with the first track on the disc.
If you allow more than 10 seconds to elapse between choosing the required track and pressing the PLAY key, the microprocessor in the player will assume that you have changed your mind, and the

command will not be executed; the flashing TRACK Display LED will go out.
If you accidentally go past the required track, hold down the SELECT button until the TRACK Display LED runs right through and returns to track 1, then run forward to the track required.

Repeating the Disc (REPEAT)

If you want to hear the whole disc again, press the REPEAT button before play ends. The REPEAT LED will light, and the disc will play continuously until you either press the REPEAT button again, or press the STOP key. In the first case the disc will play on to the end before stopping. In the second case play will stop at once. The REPEAT LED will go out.
During repeat the PROGR Display LEDs remain alight and only the TRACK Display LED indicates the progress of play.
To repeat a specific track, use the GO-TO mode. Press the SELECT button until the flashing TRACK Display LED is once more under the required track number, and then press the PLAY key again.

Finding a Particular Passage (REV SEARCH and FWD SEARCH)

During play, you can quickly locate a particular music passage in a track with the REV and FWD keys.
If you hold the REV key down, the laser pick-up runs back towards the beginning; if you hold the FWD key down, the laser pick-up runs towards the end. When you release the key, play restarts at once. By pressing the keys alternately, you can find any part of any passage.
If, by pressing the FWD key, you take the laser pick-up into the run-out of the last track, the ERROR LED will flash and the disc will stop. The same thing will happen if, by pressing the REV key, you take the laser pick-up beyond the run-in of the first track. In either case, you can restart the disc by pressing the PLAY key.
It is possible to use the REV and FWD keys to run to any point on the disc. Depending on the position of the laser pick-up, however, this can take quite a long time. It is quicker first to use the GO-TO mode to find the required track first, and only then to use the REV and FWD keys.

Interrupting Play (PAUSE)

For short play interruptions, you can press the PAUSE key. The disc carries on spinning, but the sound stops, and the PAUSE LED lights.
If you press the PAUSE key again, or the PLAY key, the sound restarts at the exact point where it was interrupted. The PAUSE LED goes out.

Stopping Play (STOP)

To stop play before the end of the disc, you press the STOP key. The disc stops, and all the LEDs in the PROGR Display relight, while the TRACK Display LED goes out.

PROGRAMMING

Instead of playing a complete disc, you can choose any number of tracks, and play only these. You can even decide on the playing sequence. You do this by programming your choice into the microprocessor memory.
The memory will accept a maximum of 15 entries. Individual tracks can be programmed to play more than once, as long as the maximum of 15 memory positions is not exceeded.
Programming is easiest when the disc is stationary and the title list contained in the disc holder is used. The titles and tracks on the disc label itself are often impossible to read through the disc compartment window. It is also possible to programme a disc in play, but this can interrupt the smoothness of the playback. For this reason, programming of a stationary disc is to be preferred.
Depending on the kind of programme you want, there are two methods of programming the player: the 'Add-in' method and the 'Take-out' method.
With *'Add-in'* programming, you put the tracks that you want to hear into the memory. This is the method to use for programming only a few tracks from a disc, for programming the same track, or tracks, to play more than once, or for changing the playing sequence; the sequence of play is entirely yours to decide.
With *'Take-out'* programming, you erase the tracks that you do not want to hear from the memory. This is the method to use when your programme will play the majority of the tracks on the disc, and you do not want to change the sequence. During programmed play, all player functions remain operative. You start play by pressing the PLAY key. You move to the next programmed track by pressing the PLAY key again; if you do this during the last track of the programme, the disc stops and the programme is erased from the memory. Using REV and FWD to search for a passage in one of the programme tracks is possible, but it is not recommended because if the laser pick-up moves outside the track which is being scanned, the programme will

be upset. To repeat the programme, you press the REPEAT button, and to interrupt it, you press the PAUSE key. When the programme has been played, the disc stops and the programme is cleared from the memory; all the PROGR Display LEDs relight and the TRACK Display LED goes out. The same thing happens if you press the STOP key before the end of the programme.

'Add-in' Programming (SELECT and STORE)

By pressing the SELECT button, bring the flashing TRACK Display LED under the PROGR Display LED corresponding to the first track that you want to programme, then press the STORE button. All the PROGR Display LEDs go out, except the one selected. Repeat this SELECT and STORE procedure for each track that you want to programme. To go from a high to a lower number, you hold the SELECT button down so that the TRACK Display LED moves to the end of the display, switches to the beginning, and then runs to the track required. Do not allow more than 5 seconds to elapse between releasing the STORE button and pressing the SELECT button to make the next selection, otherwise the TRACK Display LED will go out. It will flash again if you press SELECT once more, but then under the first LED of the PROGR Display. The programme already stored, however, remains intact - and you can move the TRACK Display LED on to the next desired track.
Each time a track is stored, the appropriate PROGR Display LED lights so that the programmed tracks are progressively displayed. To programme a track several times, press the STORE button as many times as necessary. If, in doing this, you exceed the storage capacity of the memory, the ERROR LED flashes to tell you so. When you programme a track several times, the PROGR Display LED concerned will glow continuously, regardless of the number of times the STORE button is pressed.
If you make a mistake and store a wrong track, this is easily rectified by immediately pressing the CANCEL button. The track number is erased from the memory and the corresponding PROGR Display LED goes out. To erase the whole programme, you press the STOP/CM (CM = Clear Memory) button. All the PROGR Display LEDs light and the TRACK Display LED goes out.
As soon as you press the PLAY key, the TRACK Display LED goes to the first programmed track, and the programme is then played in the chosen sequence, with the TRACK Display LED always indicating the track being played.
If, while programming a stationary disc, you mistakenly store as the first track a higher numbered track than actually exists on the disc, the ERROR LED will flash after the contents list has been read, and the track will be erased from the memory.
If, when programming a disc in play, you try to programme a wrong track, the ERROR LED will flash at once and the command will not be carried out.

'Take-out' Programming (SELECT and CANCEL)

By pressing the SELECT button, bring the flashing TRACK Display LED under the PROGR Display LED corresponding to the first track that you want to leave out of the programme, then press the CANCEL button. Repeat this SELECT and CANCEL procedure for each track that you do not want to programme; each time the associated PROGR Display LED will go out.
Do not allow more than 5 seconds to elapse between releasing the CANCEL button and pressing the SELECT button to make the next selection, otherwise the TRACK Display LED will go out. It will flash again if you press SELECT once more, but then under the first LED of the PROGR Display. This, however, does not affect the tracks that have already been cancelled from the memory - they remain cancelled - and you can move the TRACK Display LED on to the next track you want to cancel.
If you make a mistake and cancel a wrong track, this is easily rectified by immediately pressing the STORE button. The track is re-stored in the memory, and the corresponding PROGR Display LED relights. To erase the whole programme, press the STOP/CM (CM = Clear Memory) button. All the PROGR Display LEDs light and the TRACK Display LED goes out.

ADDITIONAL INFORMATION

Discs with more than 15 Tracks

In the future, it is possible that some discs may be issued with more than 15 tracks.
You will have no problems in playing such discs on your Compact Disc player, but the operation of the PROGR Display, the functions of the player and the programming will be slightly affected.
The PROGR Display will work in the normal way for the first fifteen tracks: after the contents list has been read, all 15 PROGR Display LEDs will light. As play progresses, these LEDs will go out one after another, while the TRACK Display LED moves along to indicate the track being played. When the player begins the 16th track, however, all the PROGR Dis-

play LEDs will relight and stay alight until the disc is finished. At the same time, the TRACK Display LED will go out and stay out. From now on the music will still be heard, but without further visual indication of the progress of play.
All the functions of the player will remain operative during the whole period of play, except the GO-TO mode. This can only be used for the first 15 tracks.
Programming, both 'Add-in' and 'Take-out', will also be limited to the first 15 tracks; higher numbered tracks cannot be stored in the memory.

Player Maintenance

The player mechanism is fitted with self-lubricating bearings, and must not be oiled or greased.
You can clean the cabinet, when necessary, with a chamois leather slightly moistened with water. Do not use cleaning agents containing alcohol, spirits or ammonia.
The disc compartment (A) and the spindle (B) should be kept free of dust. Be careful while cleaning in the area of the laser pick-up.
You can clean the lens (C) of the laser pick-up with a cotton wool bud, moistened with distilled water if there is a film on the lens. Do not press too hard!
The disc pressure plate in the disc compartment cover incorporates a magnet. Make sure that this does not attract any metal objects.

Disc Maintenance

Although the music track in the disc is covered with a protective layer, it is still advisable to treat the disc carefully. As long as you always pick up discs by the edge, and put them back in their holders immediately after use, cleaning will not normally be necessary.
However, should fingerprints, dust or dirt appear, you can wipe them off with the disc duster in your documentation wallet. You can breathe on the disc first if necessary, but detergent or abrasive cleaning agents must never be used, nor must be cleaning agents for conventional gramophone records!

Warning

Because of the magnetic fields produced by the magnet in the disc pressure plate and the power transformer in the player itself, it is advisable not to stand audio or video cassettes on the player.

Fitting a Mains plug (U.K. only)

The wires in the mains lead are coloured in accordance with the following code:

Blue - Neutral Brown - Live

As these colours may not correspond with the colour markings identifying the terminals in your plug proceed as follows:
The Brown wire must be connected to the terminal which is marked with the letter L or coloured Red.
The Blue wire must be connected to the terminal which is marked with the letter N or coloured Black.
Note: This apparatus must be protected by a 3 amp fuse if a 13 amp plug is used, or, if any other type of plug is used, by a 5 amp fuse either in the plug or adapter, or at the distribution board. If in doubt consult a qualified electrician.

Faults and their Likely Causes

Although the greatest care has been taken in the manufacture of this Compact Disc player, the possibility remains that a fault could appear or that for some reason the player fails to function to your complete satisfaction.
The cause, however, will certainly not always be found in the player itself. External factors, and the fact that it takes time to become acustomed to the whole concept of the new product and the new discs, can also play a role.
To save you unnecessary calls on your dealer or our Service Organisation, we have compiled a list of possible faults and their causes. To even mention some of these causes, such as those to do with mains connection, may perhaps seem excessive. Our experience shows, however, that they are easily overlooked as sources of trouble.
If, by using this list, you do not succeed in solving the problem, stop your investigation. Disconnect the mains plug and phone your dealer or the telephone number applicable to your region. They will be able to advise you what to do next.
Under no circumstances should you open up the player; this will invalidate all rights under the guarantee.

1. After switching on the player, the PROGR Display LEDs do not light.

– The ON/OFF key is not pressed in far enough to latch in.

– The mains plug of the player is not properly plugged in.

– There is no supply at the mains socket; plug in another electrical appliance and check if that works.

2. After pressing PLAY, the disc does not begin to turn.

– The player is not switched on.
– The disc is not properly located on the spindle.
– The disc compartment cover is not properly closed.
– There is an unwanted object in the disc compartment, e.g. a piece of paper or a remnant of packaging.

3. The disc begins to turn, but stops after a few seconds.

– The disc is not inserted with the label upwards.
– The disc is not flat. Try another disc which appears flat, and see if that clears the fault.
– The disc is dirty. See if cleaning the disc, or using another, clean disc, clears the fault.

4. The disc turns, but there is no sound.

– The position of the (pre)amplifier source selector switch does not correspond with the input to which the player is connected.
– The (pre)amplifier is not switched on.
– The (pre)amplifier or the (active) loudspeakers connected to it are not working. Check with another sound source to see if this is the case.

5. The sound is poor or distorted.

– The player is not connected to the CD/TV, AUX, TUNER or TAPE IN input of the (pre)amplifier but to the PHONO input.
– The (pre)amplifier or the (active) loudspeakers connected to it are not working properly. Check with another sound source to see if this is the case.
– The disc is dirty or badly scratched. See if cleaning the disc or using another, clean or scratch-free, disc improves the situation.
– The laser pick-up lens may show signs of a film of dirt. See if cleaning it with a cotton wool bud improves the situation.
– There is an unwanted object in the disc compartment, e.g. a piece of paper or a remnant of packaging.
– The transport screws have not been removed.

6. The 'Add-in' programme is not working properly.

– The disc is dirty or badly scratched. See if cleaning the disc helps or try programming a scratch-free disc.
– All 15 memory entries have been used and you have not noticed the flashing ERROR LED. Press SELECT and STORE again to see if this is the case.
– You have tried to programme a higher track number than exists on the disc. Check the number of tracks on the disc title list.

7. The following four faults can be caused by the same circumstances:

- Playback does not begin within a few seconds of pressing PLAY.
- After playback has begun, all 15 PROGR Display LEDs remain alight although there are fewer tracks on the disc.
- Playback does not begin with the first track on the disc or the programme, but with another track.
- Playback stops before the end of the disc or programme is reached, the TRACK Display LED flashes under the last played track number, the PROGR Display LEDs for the tracks that have been played also flash, and the remaining PROGR Display LEDs all light.

– The disc is dirty or badly scratched. See if cleaning the disc or using another, clean or scratch-free, disc clears the fault.
– The disc is not flat. Try another disc which appears flat and see if that clears the fault.
– The laser pick-up lens shows signs of a film of dirt. See if cleaning it with a cotton wool bud helps.
– There is an unwanted object in the disc compartment, e.g. a piece of paper or a remnant of packaging.

Technical data

(The right is reserved to change data if necessary)

Audio Performance

- Number of Channels: 2
- Frequency Range: 20-20,000 Hz, ±0.3 dB
- Dynamic Range: >90 dB
- Signal-to-Noise Ratio: >90 dB (20-20,000 Hz)
- Channel Separation:
  – >86 dB (20-20,000 Hz)
  – >90 dB (at 1000 Hz)
- Total Harmonic Distortion (incl. noise) at max. output level: < −86 dB
- Wow and Flutter: quartz crystal precision
- D/A Conversion: 16 bit with digital filtering
- Error Correction System: Cross Interleave Reed Solomon Code (CIRC)
- Audio Output Level: 2 $V_{rms,}$ typical

Optical Readout System

- Laser: semi-conductor AlGaAs
- Wave length: 800 nm

Signal Format

- Sampling Frequency: 44.1 kHz
- Quantization: 16 bit lineair/channel

Disc

- Diameter: 120 mm
- Thickness: 1.2 mm

- Sense of rotation (seen from reading side): anti-clockwise
- Scanning velocity: 1.2-1.4 m/s
- Rotation speed: 500-200 rpm
- Playing time (max): 60 min (stereo)
- Track pitch: 1.6 μm
- Material: plastic

Power Supply

- Mains Voltage: see type plate at the bottom of the player
- Mains Frequencies: 50 and 60 Hz
- Power Consumption: 20 W approx.
- Safety Requirements: IEC

Cabinet, general

- Material/finish: polystyrene with extruded aluminium profiles
- Dimensions (w × h × d)
  - with cover closed: 320 × 72 × 255 mm
  - with cover open: 320 × 179 × 255 mm
- Weight: 5 kg approx.
- Connection Cable: fitted with moulded cinch plugs

This Compact Disc player is produced in accordance with the radio interference regulations of EEC Directive 76/889/EEG of 4 November, 1976.